HINTS ON EXPERT TESTIMONY.

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The increasing use of expert testimony in all branches of science will, it is hoped, justify a few suggestions as to the rules which should govern such evidence. Perhaps it may be objected that this is outside the scope of the topics properly to come before a microscopical society, but the microscope plays such an important part in many legal and medico-legal investigations that the subject seems entirely germane. It appeals to all scientific men; it is one which in one way and another comes up frequently in our discussions.

The law, with its tenacious adherence to established forms, its preservation of rules long after the reason for them has ceased, and its indisposition to change, has offered and still offers great hindrance to the proper introduction of expert testimony, and the decisions of the various States and of England are hopelessly irreconcilable on many points. As, however, this is not the place to discuss the legal aspect of the question, it will be enough simply to mention it in order to show the reason for some of the positions urged below. As practically defined by legal decisions, an expert is one who has special skill or knowledge of any matter, whether of a scientific character or not. The amount of knowledge is immaterial, only some is required, and hence it is small wonder there is so much contradiction in so-called expert opinion. The sciolist and scientist stand on the same footing, and unfortunately before the average jury the superficial smatterer often, if not generally, makes the better impression. The change for the better will be very slow, and the expert must be largely the instrument by which it will be accomplished.

This being the case, let us see what his duty is—how expert skill can best be used to subserve the purposes of truth.

I.

The Preliminary Examination.

In making preliminary examinations of all kinds the expert should, as far as possible, avoid allowing his patron to tell him any of the

facts desired to be proved. If a criminal is to be examined as to his sanity, a patient as to the extent of his injuries in an accident, a machine as to the mechanical principles involved, a will or deed as to the kind of ink used, or a signature as to its genuineness or spuriousness, an impartial statement of the facts in the controversy is not only desirable, but frequently necessary, so that the examination will be made to cover all points at issue. But the evil comes in when those facts are stated in such a way as to disclose the side of the controversy for which the expert's testimony is wanted. The expert should be an unprejudiced judge, and that only. In many instances, when the facts of a case are widely published or the parties or lawyers are well known, this rule is impracticable, but in the majority of instances it can be followed. The judgment should be held in abeyance until all the facts can be ascertained, and in close cases of all kinds it is advantageous to classify the reasons *pro* and *con.* as they are made during the investigation, so as to more clearly have them before the mind. Such an examination should be considered a finality in itself, paid for as such, and any subsequent work in the same case should be the basis of an independent contract. There can be no retainer of an expert in advance. He may properly be obtained for an examination, but only retained when it is found after his preliminary investigation that his impartial opinion is favorable.

This leads to a consideration of a vexed question as to whether an expert, having given an opinion adverse to the party who has employed him, can conscientiously be engaged by the opposite side. Almost every one who hears the proposition stated for the first time will answer in the negative; but let us consider it for a moment. The law, wisely or unwisely, does not recognize any confidential relation as existing or possible between an expert and his patron, and the former may, if necessary, be compelled to detail any conversation or communication he may have had, the terms of his engagement, his compensation, and any statements made as to what the party calling him desired to prove. On the other hand, with singular absurdity, the law refuses to allow an expert to state that he has made the examination without knowing any of the facts of the case or the side by which he was employed. It forces him to give one set of facts and declines to permit him to disclose another set of facts of equal importance as affecting the weight of his testimony. It treats him even worse in that respect than an ordinary witness. Generally speaking, an expert is bound by the same rules

as an ordinary witness and possesses no greater privileges. If a party with a knowledge of some facts connected with a case is examined by one side and found to be a hostile witness, it is not only proper but right that if asked he should give testimony for the adverse side. Some would go even further and hold it to be a moral duty for a person in possession of important facts in a case to disclose them voluntarily to the party whose side they tended to sustain. Another more cogent practical reason why an expert should not be compelled to remain out of a case if his opinion was unfavorable to the party first employing him is that it would enable a criminal or one seeking to suppress the truth to exclude valuable testimony by engaging the few experts in his community to make preliminary examinations, and thus practically retaining them on his side, even though their conclusions should be unfavorable. The question is by no means free from difficulty or easy of solution, but the above view has been adopted by some of the best scientific men in the United States. It of course leaves the expert open to the suspicion that he is animated only by mercenary views, but it is a matter of judgment with him whether to accept or refuse in all cases, and the most satisfactory course is undoubtedly to decline to make preliminary examinations for both sides, while carefully insisting on the recognition of the right when it appears there is an attempt to defeat the ends of justice; and yet, while declining, it would be a breach of confidence for an expert to disclose the fact to one party that the opposite side had previously employed him, much more that he should relate the conversation or conclusions of the examination.

II.

The Testimony.

The duty which the law places on an expert of passing on his own qualifications is one of the most unsatisfactory and disagreeable that could be imposed. A statement by the witness of his experience, of his study, and other qualifications is not only proper, but necessary, for it would manifestly be impossible always to produce other witnesses who were acquainted with his attainments; but it may well be doubted whether the witness' own conclusions as to his qualifications are of great value. It is for the judge to say whether a person has shown himself to be qualified to speak on a subject, and the party's own judgment is immaterial. Yet as it is the basis on which largely to found a conclusion as to the weight to be given to the

witness' testimony, considerable latitude should be allowed in testing his qualifications. At best it is an awkward way of reaching a given result, and how to accomplish it most successfully is an open question. In giving his evidence the witness should be careful to make no general conclusions from special propositions. Even though it may seem to belittle his evidence or lay him open to a severe cross-examination, his scientific deductions must be carefully limited to the facts. If it is a fact, for instance, that a given lesion of the brain may produce different symptoms, or even in certain cases and for a time no apparent symptoms at all, or that the symptoms may be modified by the individual organism, all these conditions must be stated. The scientific and legal methods of investigations are radically different, and modern science often finds little in common with fixed and antiquated law. The graceful and pleasing exordiums often made concerning our bulwarks of liberty and the condensed judicial wisdom of the ages find most easy credence when uttered in Fourth of July orations and post-prandial speeches. And yet in one respect the law is very generous toward the admission of expert testimony. It gives the expert the right to not only state the conclusions he has reached from his examination, but the reasons for such conclusions. This is not only proper, but necessary, for it adds to the weight of the testimony, if true, and enables judge and jury to understand and estimate its value. Still more latitude should be given to a statement of the facts on which the opinion is founded, as this would form still another check against hasty generalizations and incorrect deductions. It would also show the knowledge of the witness and limit more precisely the field of conflicting evidence. Graphic illustration is of great value, and the law, as a rule, allows diagrams, photographs, and camera-lucida drawings to be introduced by a witness in illustration of his testimony without permitting them to be made evidence unless they are clearly proved to be accurate. It has also been held that the expert might bring his microscope before the jury and show them the signature or paper in controversy, but this is by no means a universal rule. It can only properly be applied when the object is one as to which the unscientific eye is quite capable of forming a conclusion. This can only be when a question of form or color or comparative size is involved, and even then the experiment is not always satisfactory. It would be very fortunate if the statement of the witness could be thus easily corroborated, but from the nature of the case it will rarely be possible. The things shown to the eye,

like the symptoms of a disease, are useless facts without the skill to make the proper deductions.

Lastly, the expert should on the stand, as in his preliminary examination, avoid any appearance of partisanship. Exceptions or limitations to rules, facts, or principles should be freely admitted when necessary. He is a valuable assistant, but his duty does not go so far as to allow him to assist by his skill in deceiving the witnesses of the opposite side or furnishing scientific information to help win an unjust cause. The ever-increasing field of science will make experts in all branches more necessary in the future than in the past, and those whose lives are devoted to scientific pursuits must assume much of the responsibility of directing this development.